

## The Impact of Neuroscience-Based Modern Islamic Education on the Aspect of Creative Imagination and Development of Religious Moderation on Madura Island

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### Abstract

The fading of Islamic education in Pamekasan is explicitly in remote villages. The decline in Islamic education on Pamekasan Island in the Modern Era, especially in urban areas and remote villages. This is due to the fact that Islamic education in Madura still adopts Islamic boarding school-based education. The need for the development of Islamic education such as religious moderation and the use of information technology, strengthening knowledge management for educators, *ustadz*, and teachers in Pamekasan Madura. The purpose of this study was to analyse the development of Islamic education on the island of Madura. This study used a field research approach, with the informants being the Pamekasan community, *santri*, students, teachers, lecturers, and community leaders. Data were collected by observation, in-depth interviews, and documentation. The results of the study proved that the Madurese follow the concepts and alternative approaches to knowledge based on modern Islam. Knowledge and approaches in the technological era are quite accepted by young people, the younger generation, and adults. The neuroscience approach that is packaged with modern Islamic education is able to provide awareness and technology literacy in the Madurese community. One of them is more sensitive and aware of the importance of Islamic education.

**Keywords:** islamic education, neuroscience, religious moderation, creative imagination.

### Abstrak

Menurunnya pendidikan Islam di Pulau Pamekasan di Era Modern terjadi khususnya di daerah kota dan pelosok desa. Hal ini diakibatkan karena pendidikan Islam yang ada di Madura masih mengadopsi pendidikan Islam berbasis pesantren. Perlunya pengembangan pendidikan Islam seperti moderasi beragama serta pemanfaatan teknologi informasi, penguatan *knowledge management* bagi pendidik, *ustadz*, guru di Pamekasan Madura. Penelitian ini menggunakan pendekatan studi lapangan (*field research*), dengan informan adalah masyarakat Pamekasan, peserta didik, *santri* guru, dosen, serta tokoh masyarakat. Data dikumpulkan dengan observasi, wawancara mendalam, dan dokumentasi. Hasil penelitian membuktikan bahwa orang Madura mengikuti konsep dan alternatif pendekatan pengetahuan berbasis Islam modern. Pengetahuan dan pendekatan di era teknologi cukup diterima oleh kalangan anak muda, generasi muda, dan dewasa. Pendekatan neurosains yang dikemas dengan pendidikan Islam modern yakni mampu memberi kesadaran, dan melekat teknologi di masyarakat Madura. Salah satu di antaranya lebih peka dan sadar tentang pentingnya pendidikan Islam.

**Kata Kunci:** pendidikan islam, neurosains, moderasi beragama, imajinasi kreatif.

## Background

This research is motivated by Islamic education fostering and controlling human behaviour and nature. Dewantara said that education is very valuable in realizing and preserving the values of the nobility and dignity of the nation, in particular, it conveys the concept of its institutions, including the concept of educational institutions.<sup>1</sup> Referring to the regulations and developments of the Education curriculum which was conveyed by the Minister of Education, Nadim Makarim, in 2020, in his scientific speech stating "In terms of learning development and curriculum development, education is currently in decline. As a result, the curriculum in Indonesia needs to be improved in terms of curriculum creation and learning implementation in 2020–2021." In light of this, particularly in the curriculum for Islamic Religious Education, the way Islamic learning is implemented has also experienced significant modifications. Based on the Policy conveyed by the General of Islamic Religious Education of the Ministry of Islamic Religious Affairs in 2021, "Islamic education in the millennial era must have improvements and quality objectives that are relevant to student learning outcomes". Hendro said in his scientific text that "Islamic education is a frame for actualizing the development of a nation and state".<sup>2</sup> He continued that

learning was able to implement Islamic values in the school environment and the student's home environment. Suyadi conveyed in his book as quoted from Sousa that "even though educators (teachers and lecturers) are not brain experts (neuroscience), but from a neuroscience perspective, the daily profession of educators is to "change the brain".<sup>3</sup> This is because so far there is no specific science that studies brain performance (neuroscience). Similar to how technology and knowledge are becoming more sophisticated and developed, Islamic education is also evolving.<sup>4</sup>

The decline in Madurese perceptions of the significance of Islamic education is the fundamental driving force behind this study. Sumenep, Pamekasan, Sampang, and Bangkalan make up Madura Island. Younger Madurese have so far preferred to labour outside of the city (migrate) rather than pursue education or knowledge. Regarding the concept or tenet of "It is sufficient to look for religious education in Islamic boarding schools. Higher education and college are not necessary ". As a result, the Madurese are more likely to accept the hypothesis. Additionally, the Ministry of Education and Culture, the Madura Education Office, and the function of the education government have not worked together to provide educational policies or alternatives.

<sup>1</sup> Kusmana, 'The Qur'an, Woman, And Nationalism In Indonesia Ulama Perempuan's Moral Movement', *Al-Jami'ah*, 57.1 (2019), 83–116 <<https://doi.org/10.14421/ajis.2019.571.83-116>>.

<sup>2</sup> Hendro Widodo, "The Role of School Culture in Holistic Education Development in Muhammadiyah Elementary School Sleman Yogyakarta," *Dinamika Ilmu* 19, no. 2 (2019): 265–85, <https://doi.org/10.21093/di.v19i2.1742>.

<sup>3</sup> Suyadi, Zalik Nuryana, and Niki Alma Febriana Fauzi, "The Fiqh of Disaster: The Mohammad Jailani, Suyadi

Mitigation of Covid-19 in the Perspective of Islamic Education-Neuroscience," *International Journal of Disaster Risk Reduction* 51, no. 2 (2020): 1–15, <https://doi.org/doi.org/10/1016/J.ijdr.2020.101848>.

<sup>4</sup> Suyadi and Hendro Widodo, "Millennialization Of Islamic Education Based On Neuroscience In The Third Generation University In Yogyakarta Indonesia," *QIJIS: Qudus International Journal of Islamic Studies* 7, no. 1 (2019): 173–202, <https://doi.org/DOI:10.21043/qijis.v7i1.4922>.

Islamic education developed in Pamekasan is more directed at the learning system of Islamic boarding schools. The conventional learning model in the style of the Islamic boarding school is the *Kitab kening* (books in Arabic script) system. Pamekasan Madura is better known because Madura is generally an area where 100% of the percentage of education is centrally located in Islamic boarding schools. The boarding school is more dominant than the formal institution (school). In every village in Madura must be a *langgar*, a *surau*, and even a pesantren, whether it's a branch cottage or a central cottage. Islamic education that runs in Pamekasan Madura uses more on the curriculum of Islamic boarding schools, namely teachers or *ustadz* conveying, mentoring to students or students followed by students or students following them. The learning model is in accordance with learning in this modern era. Learning that leads to modern-based learning and is relevant to the development of the Islamic religious education curriculum. However, this is in contrast because the learning expected by the teacher or *ustadz* is not as expected. Learning has not grown and developed the potential and learning outcomes of students in this digital era.

In line with the evidence of informants and accurate interview guidelines, the Madurese community still lags behind the Islamic educational civilisation. Moreover, the northern coastal community in Pamekasan is still very complex with the increase in early marriage. Lack of good learning and learning approaches, thus causing a lack of motivation and insight regarding the importance of education. As a result, many of the younger generation, or young people in Pamekasan, Madura, are trapped in early

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marriages. For example, after graduating from elementary school or junior high school, they are directed to marry by their parents.

Younger people in Madura have so far been more active in the realm of Islamic boarding schools. Islamic boarding schools tend to focus more on classical education. What is most concerning is that young people do not receive an education, even though they are in Islamic boarding schools. In particular, the younger generation prefers to work rather than continue their education or have a proper education in public school. Some of them go abroad choosing to become Indonesian Migrant Workers (TKI), and some also migrate to the capital city of Jakarta; choosing a successful career to work in rather than get an education. This is due to a lack of motivation, low creativity, and a lack of imagination. Habits passed down from generation to generation mask the existing lifestyle. In addition, in 2014, the rise of corruption in Pamekasan Madura made the arrangements in local regulations, especially in the field of education, out of sync; declining student interest in learning as a productive human resource as well as social facts that exist in Pamekasan Madura. This is in line with the evidence of the researcher's initial findings. Therefore, researchers feel it is very necessary to follow it up as an alternative and an innovation in education.

So far, many studies have responded to and reviewed educational research on the island of Madura. Based on literature data and online magazines Radar Madura, Republika, and Kompas 2021-2022, many were exposed to education in Madura. However, only a few studies focus on discussing Islamic education or Islamic boarding school education in Madura.

There is also research that has been carried out that leads to the anticipation of increasing Madurese's economic needs from an educational perspective. The research base is just an example of recent research on theses, and scientific journal manuscripts that say research provides solutions for the development of Islamic education in Islamic boarding schools. Many studies examine or discuss research in the field of Islamic education, both the development of multidisciplinary Islamic education and the implementation of Islamic education in various fields. In particular, some examine the development of Islamic education in the field of pesantren, this finding is based on Google Scholar research or social media information in Pamekasan Madura. Related to that, learning only refers to the world of pesantren and spiritual approaches, whereas there should be something that greatly updates and influences learning.

In line with relevant research, this research has also been studied by A'yun 2018, in an article entitled "*Peran Sentral Manajemen Sumber Daya Manusia dalam Meningkatkan Institusi Pendidikan Islam*". He stated that human resources in Indonesia need to be supported by the development of Islamic Education. He also emphasised the quality management of Islamic education more on the management of Islamic education; about the importance of a teacher, educator, lecturer, and even Kyai to improve the quality of Islamic education. In 2020, Sholeh conducted research on "*Manajemen Pendidikan Islam Berbasis Life Skill di Pondok Pesantren Tahfidz As-Syabidul Kabir Blumbungan Pamekasan*". He stated that he knew the implementation of life skills-based Islamic education in the *As-syabidul Kabir* Islamic boarding school was implemented in a separate portion, as

evidenced by his findings Islamic Education Life skill-based activities are applied in the form of extracurricular activities that not all students are required to participate in. It means that Sholeh's research contributes to this research. The urgency of Islamic education today requires learning or a model that is appropriate to the way students learn. In today's age of progress, learning aids and curricula that support the millennial era are necessary so that students can create content that has been adequately conceptualised by the teacher.

The next study was conducted by Ulfa, "Pengembangan Kreativitas Tari melalui Pembentukan Kelas Seni Rupa di SMPN 2 Pamekasan". The results of the research show that the learning process is carried out in 2 stages, namely planning and implementing the development of dance. Art education, as well as increasing the results of artistic creativity in the school. The third study was reviewed by Sucipto 2019, regarding "*Tampaknya Nilai-Nilai Anti Korupsi dalam Pembelajaran Pendidikan Agama Islam di Sekolah Dasar Negeri (SDN) Pademawu Barat 1 Kec. Pademawu Kab. Pamekasan*". He concluded that the importance of instilling anti-corruption education in Islamic education schools is to produce a disciplined, honest, and responsible attitude. The obstacle to this research is the absence of an anti-corruption education model that is suitable for student learning in class. The relationship between Sucipto's research and this research is relevant to the development of Islamic education, including the development of anti-corruption education, because, in this research, anti-corruption education is also a key aspect that is developed as a contribution to the prosperity and economic stability in

Pamekasan Madura. In the fourth research by Jailani 2021, on " *Menelusuri Jejak Otak dan 'Aql dalam Al-Qur'an dari Perspektif Ilmu Saraf dan Pendidikan Islam di Era Pandemi COVID-19*", Jailani stated that the results of his research were to find that neuroscience has traces in the field of Islamic education thought theologically which has neurobiology in the Qur'an al-Alaq verses 15-16 on the meaning of *nasyiyah*. It means that Islamic education requires brains and 'aql as a guide to the intelligence of participants. Then Jailani 2021 also conducted research, entitled " *Pengembangan Materi Pembelajaran Pendidikan Agama Islam: Implikasinya bagi Pendidikan Agama Islam* ", He found that the neuroscience and Quipper School-based model of developing Islamic religious education learning materials was able to facilitate students (students, and *santri*) in learning PAI. 75% of students are interested in developing the material provided by the teacher. The topic of prayer reading the Qur'an becomes interesting as they are game-based learning. The existence of quizzes and questions with a game model helps students survive in understanding PAI material.

Based on the facts of the literature as well as the reference literature in this study, it is important to do this research as a follow-up to previous research, which leads to a model or concept of developing Islamic education in Pamekasan Madura. Based on the introduction above, and the gaps in the problem analysis, the researcher offers an offer on the concepts and models of learning Islamic religious education based on neuroscience. Neuroscience-based learning supports the development of learning in front of students, especially from the perspective of Islamic religious education. As the expert on Islamic

Education Suyadi 2020, whose book is entitled " *Menjelajahi Jejak Otak dan 'Aql dalam Perspektif Al-Qur'an dan Ilmu Saraf*". Explicitly as a follow-up to the research of researchers in the structure of the development of Islamic education in the present, Specifically, the researcher specified the Pamekasan area, which incidentally can be said to be the city of Education in Madura. Novelty in this research is that researchers want to provide alternative insights that lead to the direction of modern and relevant Islamic education today. According to recent advances, an Islamic scientific perspective is well-accepted by the Madurese community. This research takes the stance that, "*if researchers assume this research is still fresh and warm that needs to be raised in the realm of research,*" especially those based on Islamic Education research, then this research is an avant-garde contrast to Islamic Education research, which is interdisciplinary, transdisciplinary, and multidisciplinary and connected with Islamic Education.

The purpose of this study was to analyse the development of a modern Islamic education approach that is easy to accept and motivates learning in Madura, where learning is more directed toward understanding the trends in modern times. One of them is learning based on religious moderation. Neuroscience-based Islamic education learning includes religious learning that is juxtaposed with neuroscience learning. Learning through new materials provides insight into the importance of education compared to work and early marriage. It is no less important for researchers to adapt to pesantren education because the Madurese are very familiar with their pesantren education, the derivative of creative imagination, anti-

corruption education, and religious moderation in Islamic education.

This research was conducted in Pamekasan Madura. The choice of setting as the object of research is based on the assumption that the development of Islamic education in Pamekasan Madura meets the basic standards of consideration for the object of this research. The reason the researcher chose the research location in Pamekasan Madura is that it aims to analyse the application of modern-based Islamic education; the implementation of Islamic religious education learning based on neuroscience, religious moderation, and creative imagination.

Pamekasan Madura's educational heritage is essentially more closely tied to its traditional culture, which includes pesantren culture development, *mustami'an*, and cow racing. According to the researcher's observations, there is just one pesantren or majid in one town in Madura.

However, despite the presence of pesantren, Madura's youth and younger generation rarely receive an education, such as by attending a school or college. They favour relocating to Jakarta, working outside of cities, or moving abroad.

It is important to conduct research related to the development of learning with a neurolinguistic approach. In line with the preliminary research survey, some problems were followed up in overcoming the Pamekasan Madura learning case.

The research approach used is a case study approach. The researchers used a qualitative case study-based approach to fully analyse the alternatives offered by novelty as mentioned in the material on religious moderation, Islamic education media, Islamic education learning packaged with neuroscience, modern Arabic teaching, and so on. The informants of this

research were the Madurese community, school institutions, teachers/lecturers, the younger generation, and community leaders. From the research subject, it is expected to obtain complete and valid data regarding the development of Islamic religious education learning in Pamekasan Madura.

In-depth interviews are used as a data collection method. Researchers used the interview technique to speak with Madurese adults, children, and community members directly to gather information. Additionally, the steps of observation and documentation are equivalent. In order to record messages or information from research subjects, researchers also carry recording equipment and notebooks. Primary and secondary data sources, as well as observational data, are all used in this study. For the development of Islamic education in Pamekasan Madura, interviews were done to examine the neuroscience approach to anti-corruption, creative imagination, and motivation.

The Miles data analysis technique is the one that was employed, and it divides the data analysis process into three stages: data reduction, data presentation, conclusion formulation, and data verification. To obtain clearer data and make it simpler to get additional data, researchers decrease the amount of data by summarising the data they have collected and choosing the key data that are required. After compiling the data so that conclusions might be drawn and revised, the researcher then delivers the information that has been gathered.

### **Overview of Pamekasan City, Madura**

Based on a research survey, Pamekasan is a district city on the island of Madura. The city of Pamekasan is famous

for its culture and education. Pamekasan is known as the city of education because in this city there are many educational institutions, especially non-formal educational institutions, namely *madrasah diniyah*, *madrasah ibtida'iyah*, Islamic boarding schools, *surau*, *langgar*, and places for studying to read the Quran. The main livelihood of the Pamekasan people is farming, the main occupation of farming is growing tobacco. Apart from farming tobacco, Pamekasan is also known as fishermen. In Madura, Pamekasan is referred to be the city of education. Pamekasan is also referred to be a tropical region with a scorching environment, similar to a dry or hot city. However, rice, corn, beans, tobacco or tobacco seeds are all grown in abundance in Pamekasan's lush agricultural land. Cow racing and the recitation culture, which yearly invites members of the community or *ustadz* to organise a major recitation, are examples of Pamekasan's unique cultural practises.

Islamic Religious Education instruction in Pamekasan is highly developed and geared towards pesantren, as stated in the beginning. The development of Islamic education, on the other hand, is still regarded as standard in Pamekasan society, in keeping with the culture and way of life there. As a result, the current young generation is still lacking in strong

motivation for the advancement and provision of the world of science and information technology in keeping with the development of the modern era.

### Implementation of Neuroscience and Islamic Education on Madura Island

The development of neuroscience as a knowledge of the nervous system or of the human brain is currently experiencing significant progress. Experts continue to study about its relationship with human life, including the world of education where the uniqueness of the development of brain abilities is closely related to the output achievements of an educational process. Hamdan (2018)<sup>5</sup> stated that the ability of the brain is certainly different from the capabilities that exist in computers or other technologies. Humans do, on occasion, even think of themselves as computers that solely employ their brains as storage devices. The truth is that the brain acquires knowledge through a combination of the emotions, memories, intentions, and other aspects of its mental existence.

Al-Islam subject is a special feature for Muhammadiyah schools in Indonesia.<sup>6</sup> Islamic education science from the Middle East has undergone remarkable growth in Indonesia as a result of its development using contemporary Western approaches.<sup>7</sup>, so that Muhammadiyah schools are known as progressive millennial Islamic education.<sup>8</sup>

<sup>5</sup> Hamdan Husein Batubara and Asep Supena, "Educational Neuroscience Dalam Pendidikan Dasar," *Jurnal Pendidikan Dasar* 9, no. 2 (2018): 140–48, <https://doi.org/10.21009/JPD.092.013>

<sup>6</sup> Suyadi et al., "Academic Reform and Sustainability of Islamic Higher Education in Indonesia," *International Journal of Educational Development* 89 (2022): 102534, <https://doi.org/10.1016/j.ijedudev.2021.102534>.

<sup>7</sup> Suyadi and Sutrisno, "A Genealogical Study of Islamic Education Science at the Faculty of Ilmu Tarbiyah Dan Keguruan UIN Sunan Kalijaga," *Al-Jami'ah* 56, no. 1 (2018): 29–58, <https://doi.org/10.14421/ajis.2018.561.29-58>.

<sup>8</sup> Yusmaliana Desfa et al., "Creative Imagination Base on Neuroscience: A Development and Validation of Teacher's Module in Covid-19 Affected Schools," *Universal Journal of Educational Research* 8, no. 1 (2020): 5849–58, <https://doi.org/10.13189/ujer.2020.082218>.

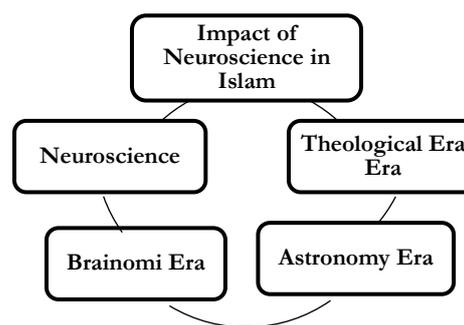
One of the educational assets of Muhammadiyah is the ownership of organizational assets in the form of the Muhammadiyah Neuroscience Agency, one of which is implemented in Islamic education is the development of creative imagination.

Muhammadiyah education is still a long way from cultivating creative imagination, though, as of right now. This is due to Al-Islam learning having a hallowed religious ceremonial character,<sup>9</sup> so it is not easy to accept creativity. In fact, the creativity that appears in the *muamalah* or historical aspects of civilization can produce the beauty of diversity in one faith.

The creativity that appears in each individual is determined by several factors including the development of the potential that exists in the brain of each individual. Hanafi<sup>10</sup> states that It is common for creative people to think about and solve problems in novel and unusual ways, as expressed by Wallas<sup>11</sup> during this period, the mind incubates ideas and prepares them for later. Therefore, it can be concluded that the thought process contained in the brain is a determinant of how much creativity can be generated.

In Islam, Allah SWT has obligated a Muslim to optimize the thought process and maximize his mind for the benefit of the people. This is revealed through his various verses which is in Arabic, namely *tafakkur*. The various verses of which are in the QS. Al-Baqarah verse 219; QS. Al-

Imran verse 191; QS. Al-An'am verse 50; QS. Al-A'raf verses 176 & 184; QS. Jonah verse 24; QS. Al-Ra'd verse 3; QS. An-Nahl verses 11.44 & 69; QS. Ar-Rum verses 8 & 21; QS. Saba' verse 46; QS. Az-Zumar verse 42; QS. Al-Jatsiyah verse 13; QS. Al-Hashr verse 21 and QS. Al-Muddatstsir verse 18. In response to this, Suyadi selects the foundation of neuroscience in education as an interpretation of the concept of *'aql* and *qalb*.<sup>12</sup>



**Figure 1.** Implementation of Substation Neurosains Islamic Education

*"This provides effective support for the understanding and awareness of the Madurese community, where the community and young people have more insight and experience. They are also more technologically literate with the development and use of technology. The use of neuroscience is strongly supported by creative imagination and motivation to learn education in particular Islamic education".*

Based on the results of interviews with community leaders: Mr. Taufik as a community leader in Pasean Pamekasan gave a lot of information so that researchers could easily record, understand and

<sup>9</sup> Suyadi, Nuryana, and Fauzi, "The Fiqh of Disaster: The Mitigation of Covid-19 in the Perspective of Islamic Education-Neuroscience."

<sup>10</sup> Fadhli Lukman, *Hemenentika Pembebasan Hasan Hanafi Dan Relevansinya* (Yogyakarta: UIN Sunan Kalijaga, 2018).

<sup>11</sup> Nicolas B Barreto and Michael A Hogg, "Influence and Leadership in Small Mohammad Jailani, Suyadi

Groups: Impact of Group Prototypicality, Social Status, and Task Competence," *Journal of Theoretical Social Psychology* 2, no. 1 (2018): 26–33, <https://doi.org/10.1002/jts5.16>.

<sup>12</sup> Taufiq Pasiak, *Tuhan Dalam Otak Manusia: Mewujudkan Kesehatan Spritual Berdasarkan Neurosains* (Bandung: Mizan, 2016).

respond to the information provided. It is true and appropriate if modern learning such as neuroscience is socialized in the Madurese community. Indeed, basically the community is very layman in responding to and receiving information or this religious learning approach. But gradually the community is also willing to accept and respond to this material (Taufik, Interview, 2022).

**Development of Religious Moderation on Madura Island**

Hamidi, a medical nurse figure in Pasean Pamekasan, said, "The lack of religious tolerance awareness in Pamekasan Madura also contributes to the people's staunch adherence to current events. It continues to be strongly tied to culture and understanding today, serving as an illustration of how to grasp NU and Muhammadiyah. Every society is significantly distinct from the next. Although Islam and Christianity are frequently discussed in formal forums in Madura, understanding of NU and Muhammadiyah is more prevalent in Pamekasan Madura."

Madurese society is extremely delicate and risky to comprehend. As a result, scholars propose and provide an Islamic-based framework for comprehending religious moderation. Researchers provide materials for religious moderation and Islamic education that are still related to religious moderation or religious tolerance through a religious perspective and an Arabic language perspective.<sup>13</sup>

<sup>13</sup> Titi Kadi, "Mainstreaming Islamic Moderations Values in Higher Education :," *Dinamika Ilmu* 22, no. 1 (2022): 1–15.

<sup>14</sup> Mohammad Sholeh, "Potret Pendidikan Islam Di Pamekasan Madura (Peran KH. Ahmad Mohammad Jailani, Suyadi

The government and local authorities who are helped by the Islamic boarding schools in Madura make an effort to promote religious tolerance. The island of Madura is known as a residential school and has a large Muslim population. However, Madura has a higher concentration of pesantren that follow a *salafi* curriculum.<sup>14</sup>

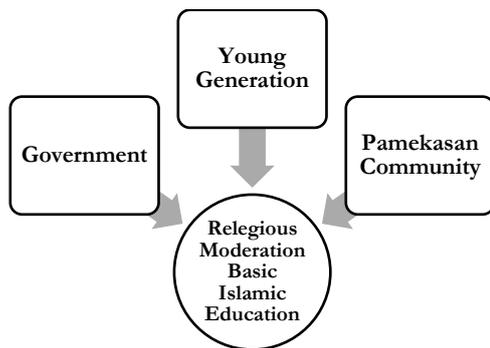
The existence of a religious moderation policy proclaimed by the Minister of Religion Yaquut Qoumas made the Madurese community aware to always be tolerant and accept differences between one another. Religious moderation does not only respond to differences in caste, profession, even to differences in understanding which are still strong and close in Madura." *Pamekasan is a well-placed city, with a number of nearby villages and sub-districts. While some people fish and farm, the bulk of people work in agriculture. Pamekasan is surrounded by still-beautiful sea and mountains, covering an area of 792.24 km2. When the soil in Pamekasan is planted, it is highly fertile, and generally speaking, people grow rice, beans, corn, cereals, and tobacco, but tobacco is the most common crop. Additionally stunning and unspoilt are the beaches. People who live close to the seaside are generally more prone to go at sea, sometimes staying at sea for up to a week."*

Subdistrict	Village	Cemetery	Market	Agriculture	Forest
Tlanakan	555,22	13,5	1,5	875,03	338
Pandemawu	793,08	20	1,6	2840,4	238
Galis	282,62	7,1	3,4	912,5	269
Larangan	890,8	22	1,5	750,1	-
Pamekasan	937,62	22,6	6,5	532,5	-
Propopo	1.266,78	33,2	1,9	506	-
Palengaan	1.563,22	20,2	1,7	594	-
Pengantenan	2.171,93	54	1,5	298	-
Kadur	872,49	21,8	1,5	203,5	-
Pakong	482,31	10,8	1,5	1659,5	219
Waru	885	22,6	1,5	1141,2	94
Batumamar	368,5	9,5	1,2	2696,7	-
Pasenan	462,13	11,6	1	251	-

**Table 1.** Pamekasan city demographics .<sup>15</sup>

\*Land Use (Ha) 2010

The demographics of Pamekasan are depicted in the table 1, which demonstrates the city's strategic importance and its fertile environment for crops and other agricultural products. To prevent corruption at the hands of people and reckless leaders, management and welfare must therefore be strengthened and developed to the fullest extent possible.



**Figure 2.** Moderation Religion

Latin *moderatio*, which means moderate (no excess and no shortage).<sup>16</sup> The word also means self-control from excess and deficiency). The Indonesian

Dictionary (KBBI) provides two meanings of the word moderation, namely. reduction of violence and avoidance of extremes. If it is said, “that person is being natural, mediocre, and not extreme. In Arabic, moderation is known as *wasath* or *wasathiyah*, which has an equivalent meaning with the words *tawassuth* (middle), *I'tidal* (fair) and *tawazun* (balanced). People who apply the principle of *wasathiyah* can be called *wasith*. In Arabic too, the word *wasathiyah* is defined as the best choice.<sup>17</sup>

Whatever terminology is chosen, it all conveys the same notion, which is fairness, which in this situation means finding a middle ground between a number of extreme possibilities. The word was even assimilated into Indonesian to become the word referee, which has three meanings: 1) middleman, intermediary (e.g., in trade, business); 2) mediator (separator, reconciler) between the disputants; and 3) the leader in the match. Therefore, religious moderation is a perspective, attitude, and behaviour that constantly adopts a middle ground, always acts justly, and does not practise excessive religion.<sup>18</sup>

Research on religious moderation has always been a very hot issue to discuss because in the course of post-reformation in Indonesia this opens the door to freedom of speech and opinion. This is shown by research themes that are increasingly widespread, such as Religious Moderation in Indonesia's Diversity Islamic Radicalism

<sup>15</sup> Internet Clipping, 'Pamekasan Regency Profile', Madura Info, 2020 <<http://infomadura.blogspot.com/2010/01/profil-kabupaten-pamekasan.html>>.

<sup>16</sup> Resti Septikasari and Rendy Nugraha Frasandy, “Keterampilan 4C Abad 21 Dalam Pembelajaran Pendidikan Dasar,” *Tarbiyah Al-Anlad* VIII, no. 2 (2018): 112–22.

<sup>17</sup> Ahmad Dzulfikar and Muhammad Afwan Romdloni, “Al-Qur’an Dan Relasi Umat Beragama; Mohammad Jailani, Suyadi

Prinsip Dasar Harmoni Antar Umat Beragama Perspektif Al-Qur’an,” *Journal of Islamic Civilization* 1, no. 1 (2019): 1–16, <https://doi.org/10.33086/jic.v1i1.874>.

<sup>18</sup> Maskuri, A. Samsul Ma’arif, and M. Athoiful Fanan, “Mengembangkan Moderasi Beragama Mahasantri Melalui Ta’ Lim Ma’ Hadi Di Pesantren Mahasiswa,” *Pendidikan Agama Islam* 7, no. 1 (2020): 32–45.

VS Islamic Moderation: Efforts to build a peaceful face of Indonesian Islam.<sup>19</sup>

Accordingly, the researchers are interested in providing training or directions in Pamekasan Madura. Miscommunication still occurs occasionally in modern times, for example when there are still intrinsic understanding gaps in Madura. There may still be disagreements on issues such as when Eid al-Adha or Eid al-Fitr should fall. It is clear that Madura has more NU organisations. Due to the abundance of Islamic boarding schools in Madura, it has more significance. The researcher offers an alternative: how can NU and Muhammadiyah institutions and understandings be understanding and welcoming of these disparities.

### Stimulating Creative Imagination Based on Islamic Education

Based on data from an informant from a local figure: Hartono "Islamic education so far has only focused on religion and cultural culture. The people are more interested in the bull racing, and Islamic religious studies. On the other hand, young people and the younger generation are very left behind, many choose to work rather than go to school. Many choose to marry early rather than improve the culture of educational literacy". Therefore, it may be said that Madurese people favour early marriage and work more than studying, which also increase the

quality of understanding Islamic educational books.

"*Imagination is more important than knowledge, as knowledge is limited to all we now know and understand, while imagination embraces the entire world, and all there ever will be to know and understand*". Albert Einstein has suggested that imagination is an extraordinary thing in human beings.<sup>20</sup> He views imagination as above science. He explained this because the knowledge possessed by humans will be limited to the time and understanding of humans at the time when they live and create, but with the imagination possessed by humans, humans can imagine far into the future even centuries after their time in the world. For example, with imagination, Bill Gates and Steve Jobs, can imagine that one day in every home there will be a computer. This has happened at this time and was not imagined by most people at that time.<sup>21</sup>

Einstein had imagined that he could penetrate time and ride light so as to provide more motivation for him to keep trying to solve the mysteries of nature which later proved to have provided the foundation for further scientific developments.<sup>22</sup> Einstein also admitted that his scientific views were more significant because of his imagination. Numbers, forms of equations, and words that are packaged from imagination are forms of the theory of relativity combining a synthesis of the left and right cortex.<sup>23</sup>

<sup>19</sup> Engkos Kosasih et al., "Literasi Media Sosial Dalam Pemasarakatan Moderasi Beragama Dalam Situasi Pandemi Covid-19," *Digital Library UIN Sunan Gunung Djati Bandung*, 2020.

<sup>20</sup> Branton C Shearer, "The Theory of Multiple Intelligences After 40 Years: A Scientific Idea Whose Time Has Come or Gone?," *An Interdisciplinary Journal Wwww.Psychologyandeducation.Net* 57, no. 7 (2020): 487–94.

<sup>21</sup> Yusmaliana Desva and Suyadi, "Pengembangan Imajinasi Kreatif Berbasis Mohammad Jailani, Suyadi

Neurosains Dalam Pembelajaran Keagamaan Islam," *Edukasia: Jurnal Penelitian Pendidikan Islam* 14, no. 2 (2019): 267, <https://doi.org/10.21043/edukasia.v14i2.4213>.

<sup>22</sup> Roibin, "Agama Dan Mitos: Dari Imajinasi Kreatif Menuju Realitas Yang Dinamis," *El-HARAKAH* 12, no. 2 (2010): 85–97, <https://doi.org/10.18860/el.v0i0.445>.

<sup>23</sup> Tony Buzan, *Use Both Sides of Your Brain: Teknik Pemetaan Kecerdasan Dan Kreativitas Pikiran*,

Therefore, imagination can be said to be the biggest contributor to innovations around the world today and in the future. Vygotsky believed that imagination is the basis of all creative activity, an important component of all aspects of cultural life, allows artistic, scientific and technical creation of the entire world of human culture, which is different from the natural world, all these are the result of human imagination and creation based on imagination.<sup>24</sup> Judson (2014)<sup>25</sup> adds that humans are actually imaginative creatures who see and perceive, feel, and think simultaneously as David Kresch calls him "perfiners" or the opposite of simple thinkers. For example, Einstein who was once considered stupid and expelled from class with always low grades turned out to be not a measure of his success.<sup>26</sup> He uses more or less 'shadows' that are approximately clear so that they can be 'deliberately' remade and combined in completing a concept.<sup>27</sup>

Visual imagery is perhaps best known in this development of the imagination because of its direct effect on physiology. Through imagery, humans can stimulate changes in many bodily functions that would normally be considered inaccessible to the influence of consciousness. Visual

images will provide interpretation to humans themselves. This is because the visual image is a stream of thoughts that we can see, hear, feel, smell, or taste.<sup>28</sup> As stated above that visual images are windows in the inner world of humans that are used to see ideas, feelings, and human interpretations themselves, therefore visual images are also a means of transformation and liberation from distortions in this world that unconsciously direct human life and shape human life. man.<sup>29</sup>

Creative imagination in Islamic education is implementing Islamic religious learning in schools or Madrasas by giving creative imagination to students and *santri*. In the creative imagination that is strengthened is the learning, the material, and the method of how the teacher can teach and students are interested. The relevance of learning creative imagination with Islamic education is to form good human beings who have a balance between cognitive, affective and psychomotor aspects, and psychologically can optimize human potential. Many people believe that reasoning which is closely related to science is a different activity from imagination.

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*Temuan Terkini Tentang Otak Manusia* (Yogyakarta: Ikon Teralitera, 2003).

<sup>24</sup> Awaliyah Musgamy, "Quantum Learning Sebagai Proses Pembelajaran Bahasa Arab Aktif, Inovatif, Kreatif, Efektif Dan Menyenangkan," *Ad-Daulah Pendidikan Bahasa Arab* 6, no. 1 (2017): 145–55.

<sup>25</sup> Asmawati BTE T E Suhid et al., "Malaysian Teacher Quality for Human Capital Development," *Australian Journal of Teacher Education*, 2010.

<sup>26</sup> Taufiq Pasiak, "Pengantar, Antara Tuhan Empirik Dan Kesehatan Spiritual", *Dalam Taufik Pasiak (Ed.), Tuhan Empirik Dan Kesehatan Spiritual, Pengembangan Pemikiran Musa Ayyarie Dalam Bidang Kesehatan Dan Kedokteran* (Yogyakarta: Center for

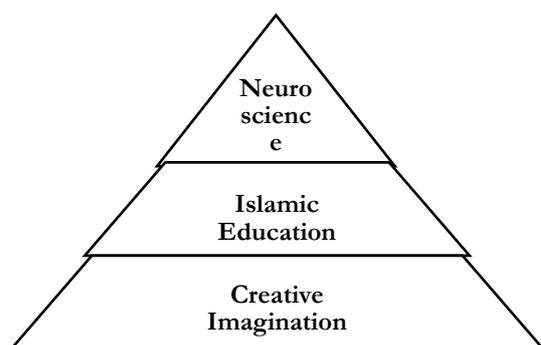
Neuroscience, Helat and Spirituality (C-NET) UIN Sunan Kalijaga, 2012).

<sup>27</sup> Rahmi Rivalina, "Pendekatan Neurosains Neuroscience Approaches Improving High Order Thinking Skills of Basic," *Jurnal Teknologi Pendidikan* 08, no. 01 (2020): 83–109.

<sup>28</sup> L. Riskiningtyas and M. N. Wangid, "Students' Self-Efficacy of Mathematics through Brain Based Learning," *Journal of Physics: Conference Series* 1157, no. 4 (2019), <https://doi.org/10.1088/1742-6596/1157/4/042067>.

<sup>29</sup> Virginia Bonomo Ed. D., "Brain-Based Learning Theory," *Journal of Education and Human Development* 6, no. 2 (2017): 27–43, <https://doi.org/10.15640/jehd.v6n1a3>.

However, Bronowski (2015)<sup>30</sup> states the opposite where he traces imaginative activities from when humans were small to adults. He said that a child explores everything that appears around him before the age of one. A baby is constantly looking at the object he is looking at and this is the first major step of human development which when it is out of sight it makes no sense to him. However, in development a few years later in his life, a child will take the second and bigger step of making pictures of things that are not there, and being able to use pictures to think about himself into unknown situations. At that moment, a human enters the gate of imaginative thinking which in this case includes a thought process called reasoning.<sup>31</sup>



**Figure 3.** Creative Learning Pyramid.<sup>32</sup>

The pyramid of imaginative creativity used in Islamic education, which is based on neuroscience, is depicted in the image above. Neuroscience, creative imagination, and Islamic education make up the three phases or levels. where these factors are connected and where learning about Islam

is the ultimate goal. Playing religious music, reading inspiring stories, singing spiritual songs, performing artistic dances, and creating original paintings are just a few Islamic religious learning activities that can be used to inspire children's imaginative play. Strengthening creative learning through games or musical learning materials and inviting students to study outside in the schoolyard are examples of factors that encourage creative creativity. College students can work in groups to study, and teachers can teach less by offering one complete lecture every week.<sup>33</sup>

### Conclusion

According to the study's findings, the Madurese community's acceptance of Islamic religious learning and values, particularly those based on contemporary research in the fields of neuroscience, the arts, and religious moderation, is profoundly influenced by these developments. The Madurese community can accept between 50% and 60% of the understanding that is supported by three key components of the offer from the researcher. Based on the research sample provided to informants, the study analysis's findings. At least it has had a positive impact on the younger generation and the younger generation on Madura, even though the percentage of modern Islamic education development in Madura is not very high

On the one hand, the Madurese has a strong culture as well as the problem of

<sup>30</sup> Batubara and Supena, "Educational Neuroscience Dalam Pendidikan Dasar."

<sup>31</sup> Danial Hilmi, "Impact Of Arabic Online Learning In The Perspective Of How The Brain Learns," *Ijaz Arabi Journal of Arabic Learning* 4, no. 1 (2020): 59–73, <https://doi.org/10.18860/ijazarabi.v4i1.10442>.

<sup>32</sup> Yusrin Ahmat sitepu, 'Creative Learning for the Demands of Today's Education', Creative Mohammad Jailani, Suyadi

Learning, 2020 <<https://yusrintosepu.wixsite.com/yoer/post/2020/10/15/pembelajaran-kreatif-tuntutan-dunia-zaman-now>> .

<sup>33</sup> Syahidin Tatang Hidayat, "Inovasi Pembelajaran Pendidikan Agama Islam Melalui Model Contextual Teaching and Learning Dalam Meningkatkan Taraf Berfikir Peserta Didik," *Jurnal Pendidikan Agama Islam* XVI, no. 2 (2019): 115–36.

understanding between NU and Muhammadiyah nowadays. Therefore, it is expected when the researchers who directly affect the Madurese community, it is more helpful to provide awareness of literature, and the values of religious tolerance. The approach used by researchers is with unique. Such as the implementation of creative imagination and strengthened by Islamic-based neuroscience and the development of religious moderation as initiated by the Minister of Religion Gus Yaqout Qoumas. As ordinary humans, researchers also experience shortcomings, as well as in this study it has limitations both in content and analysis of the main substance in this study, just an example, researchers have not discussed the development of Islamic education perfectly in learning in Pamekasan, researchers apply it only to schools in Pamekasan Madura, researchers have not tried to develop neuroscientist-based Islamic Education learning in the last COVID-19 period, researchers have not collaborated neuroscience with the understanding of the Qur'an in Islamic Education related to interdisciplinary, transdisciplinary, and multidisciplinary in Islamic Education discourse.

New researchers implement through research facts. therefore, researchers provide alternatives to interested parties that are relevant to this research. Researchers recommend (academics and researchers) to conduct further research to find models and concepts in comprehensive Islamic education learning, just examples of interpretation-based Islamic religious learning in which all material is related to the verses of the Qur'an to bring students closer to Al-Qur'an. -The Qur'an or Avicenna's multilevel reasoning approach, because the

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researcher realizes that there are no researchers who lead to the research base. Research that has broad implications for Islamic education discourse, especially nowadays online, in a time of increasing development and technology, especially during the COVID-19 period.

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